

K & I Hard Chrome, Inc.  
New Albany, Indiana  
Permit Reviewer: NH/EVP

Page 2 of 2  
MSOP 043-11884-00052

Questions should be directed to Nishat Hydari, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call 973-575-2555, ext. 3216 or call (800) 451-6027, press 0 and ask for extension 3-6878.

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

NH/EVP

# **MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY**

**K & I Hard Chrome, Inc.  
1900 E. Main Street  
New Albany, Indiana 47150**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 043-11884-00052	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:  Expiration Date:

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary hard and decorative chromium electroplating facility.

Authorized Individual: Mark W. Nichols  
Source Address: 1900 E. Main Street, New Albany, IN 47150  
Mailing Address: 1900 E. Main Street, New Albany, IN 47150  
Phone Number: (812) 948-1166  
SIC Code: 3471  
County Location: Floyd  
County Status: Nonattainment for Ozone  
Attainment area for all other criteria pollutants  
Source Status: Minor Source Operating Program  
Minor Source, under PSD or Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to operate the following emissions units and pollution control devices:

- (1) One (1) Hard Chromium Electroplating Operation (identified as System #1) with a maximum cumulative rectifier capacity of 42,336,000 Ampere-hour (A-hr) consisting of:
  - (a) Three (3) hard chromium electroplating tanks, identified as #31, #32 and #33, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #1;
- (2) One (1) Hard Chromium Electroplating Operation (identified as System #2) with a maximum cumulative rectifier capacity of 170,520,000 Ampere-hour (A-hr) consisting of:
  - (a) Six (6) hard chromium electroplating tanks, identified as #41, #42, #43, #44, #45 and #46, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #2;
- (3) One (1) Decorative Chromium Electroplating Operation (identified as System #3) consisting of:
  - (a) One (1) decorative chromium electroplating tank, identified as #04, using a hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket, and exhausting to one (1) stack, identified as #3;
- (4) One (1) Decorative Chromium Electroplating Operation (identified as System #4) consisting of:

- (a) One (1) decorative chromium electroplating tank, identified as #05, using a hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket;
- (5) Three (3) electroless nickel plating systems, identified as # 1, # 2 and # 3, using three (3) exhaust fans for control, exhausting to three (3) stacks identified as # 4, # 5 and # 6, respectively;
- (6) One (1) batch vapor cleaning open top degreaser operation, installed in 1974 and identified as HDCR-DEGR-01, with a daily solvent consumption rate of 18.3 gallons per day of trichloroethylene.
- (7) One (1) natural gas fired boiler, identified as Main Boiler, with a maximum heat input rate of 4.718 million (MM) British thermal units (Btu) per hour, exhausting through one (1) stack identified as # 7;
- (8) One (1) natural gas fired gas burner for tank, identified as Black Oxide, with a maximum heat input rate of 0.30 MMBtu per hour, exhausting through one (1) stack identified as # 8; and
- (9) One (1) natural gas fired gas burner oven, identified as Oven, with a maximum heat input rate of 0.70 MMBtu per hour, exhausting through one (1) stack identified as # 9.

## **SECTION B                      GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1      Permit No Defense [IC 13]**

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This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2      Definitions**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3      Effective Date of the Permit [IC13-15-5-3]**

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Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4      Revocation of Permits [326 IAC 2-1.1-9(5)]**

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.5      Modification to Permit [326 IAC 2]**

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Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).



## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

#### C.4 Inspection and Entry [326 IAC 2-7-6(2)]

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

#### C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

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Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.6 Permit Revocation [326 IAC 2-1-9]

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Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.

- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.7 Opacity [326 IAC 5-1]**

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Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

**C.8 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**Testing Requirements**

**C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]**

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least

two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

### **Compliance Monitoring Requirements**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

#### **C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]**

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- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

#### **C.12 Monitoring Methods [326 IAC 3]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

#### **C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]**

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
  - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
  - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

#### **Record Keeping and Reporting Requirements**

##### **C.14 Malfunctions Report [326 IAC 1-6-2]**

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and

shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

**C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]**

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- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

**C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]**

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- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the

Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

**C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

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- (a) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (b) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.
- (d) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

**C.18 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.



## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (1) One (1) Hard Chromium Electroplating Operation (identified as System #1) with a maximum cumulative rectifier capacity of 42,336,000 Ampere-hour (A-hr) consisting of:
  - (a) Three (3) hard chromium electroplating tanks, identified as #31, #32 and #33, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #1; and
- (2) One (1) Hard Chromium Electroplating Operation (identified as System #2) with a maximum cumulative rectifier capacity of 170,520,000 Ampere-hour (A-hr) consisting of:
  - (a) Six (6) hard chromium electroplating tanks, identified as #41, #42, #43, #44, #45 and #46, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. The permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

#### D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46. A copy of this rule is attached. The permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

#### D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)] [326 IAC 20-8-1]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.
- (b) The hard chromium electroplating tanks, identified as #41, #42, #43, #44, #45 and #46 above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm [ $6.6 \times 10^{-6}$  gr/dscf].
- (c) The hard chromium electroplating tanks, identified as #31, #32 and #33 above, are considered a small, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the hard chromium electroplating tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.03 mg/dscm [ $1.3 \times 10^{-5}$  gr/dscf].

**D.1.4 Work Practice Standards [40 CFR 63.342(f)] [326 IAC 20-8-1]**

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The following work practice standards apply to tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, including the composite mesh pad system and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAQ finds that the plan:
  - (1) Does not address a malfunction or period of excess emissions that has occurred;
  - (2) Fails to provide for the operation of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the composite mesh pad system and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
  - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh pad system, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

**D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for the tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 and the composite mesh pad system.

**D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)] [326 IAC 20-8-1]**

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- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46. The OMP shall specify the operation and maintenance criteria for the tanks, the composite mesh pad system and monitoring equipment and shall include the following elements:

- (1) For the composite mesh-pad system (CMP):
    - (A) Quarterly visual inspections of the device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.
    - (B) Quarterly visual inspection of the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.
    - (C) Quarterly visual inspection of the duct work from the tank to the control device to ensure there are no leaks.
    - (D) Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations.
  - (2) A standardized checklist to document the operation and maintenance criteria for tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the air pollution control device, the add-on air pollution control device and the monitoring equipment.
  - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
  - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the air pollution control device, the add-on air pollution control device and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.6(a).
  - (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks #31, #32, #33, #34, #41, #42, #43, #44, #45 and #46, the air pollution control device, the add-on air pollution control device and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
  - (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.

- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each revision to the plan.

#### **Compliance Determination Requirements [326 IAC 2-1.1-11]**

##### **D.1.7 Performance Testing [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]**

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- (a) A performance test demonstrating initial compliance for tanks #31, #32 and #33 was performed on March 12, 1997 and a performance test demonstrating initial compliance for tanks #41, #42, #43, #44, #45 and #46 was performed on March 11, 1997.

During the initial performance test conducted on March 12, 1997 for tanks #31, #32 and #33, it was determined that the average pressure drop across the composite mesh pad system was 2.25 inches of water and the average outlet chromium concentration was 0.0017 mg/dscm. During the initial performance test conducted on March 11, 1997 for tanks #41, #42, #43, #44, #45 and #46, it was determined that the average pressure drop across the composite mesh pad system was 2.8 inches of water and the average outlet chromium concentration was 0.0056 mg/dscm.

- (b) The Permittee is not required to further test tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 by this permit. However, the IDEM may require testing when necessary to determine if the tanks are in compliance. If testing is required by the IDEM, compliance with the limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of the tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the composite mesh pad system or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

#### **Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]**

##### **D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [326 IAC 20-8-1]**

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- (a) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Condition D.1.3, the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within  $\pm 1$  inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
- (b) Tank operation or operating time is defined as that time when a part is in the tank and the

rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts is considered operating time.

## **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

### **D.1.9 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]**

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The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4 and D.1.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the composite mesh pad system and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 and D.1.8 have taken place. The record can take the form of a checklist and should identify the following:
  - (1) The device inspected;
  - (2) The date of inspection;
  - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
  - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the composite mesh pad system and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the composite mesh pad system and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46, the composite mesh pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.

- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.1.8(b), of each tank, during the reporting period.
- (k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.11.

**D.1.10 Reporting Requirements [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347]**

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The notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C - General Reporting Requirements.

- (a) Notifications:
  - (1) Initial Notifications  
The Permittee shall notify IDEM, OAQ in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).
  - (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
    - (A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
    - (B) The NCS for tanks (#31, #32, #33, #41, #42, #43, #44, #45 and #46) was submitted to IDEM, OAQ.
  - (3) Notification of Construction or Reconstruction  
Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.
    - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
    - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common

control technique or device [i.e., the addition of duct work to the CMP system]

- (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 serves as this notification.
  - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.
- (b) Performance Test Results  
The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.
- (c) Ongoing Compliance Status Report  
The Permittee shall prepare summary reports to document the ongoing compliance status of tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).
- Because tanks #31, #32, #33, #41, #42, #43, #44, #45 and #46 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAQ upon request.
- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
    - (A) The first report shall cover the period from the issuance date of this permit to December 31 of the year in which the permit is issued.
    - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
  - (2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
    - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.8(b) for the reporting period; or
    - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.1.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting

frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAQ may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.



## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (3) One (1) Decorative Chromium Electroplating Operation (identified as System #3) consisting of:
  - (a) One (1) decorative chromium electroplating tank, identified as #04, using a hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket, and exhausting to one (1) stack, identified as #3;
- (4) One (1) Decorative Chromium Electroplating Operation (identified as System #4) consisting of:
  - (a) One (1) decorative chromium electroplating tank, identified as #05, using a hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket; and
- (5) Three (3) electroless nickel plating systems, identified as # 1, # 2 and # 3, using three (3) exhaust fans for control, exhausting to three (3) stacks identified as # 4, # 5 and # 6, respectively.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N.

#### D.2.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to tanks #04 and #05. A copy of this rule is attached.

#### D.2.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)] [326 IAC 20-8-1]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.
- (b) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks #04 and #05 by:
  - (1) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and four-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air ( $4.4 \times 10^{-6}$  gr/dscf)]; or
  - (2) Not allowing the surface tension of the electroplating bath contained within the tank to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot ( $3.1 \times 10^{-3}$  lb/ft)] at any time during operation of tanks #04 and #05 when a chemical

fume suppressant containing a wetting agent is used.

#### D.2.4 Work Practice Standards [40 CFR 63.342(f)] [326 IAC 20-8-1]

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The following work practice standards apply to tanks #04 and #05:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain tanks #04 and #05, including the combination wetting agent type fume suppressant and foam blanket and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.2.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.2.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.2.6. Revisions may be required if IDEM, OAQ finds that the plan:
  - (1) Does not address a malfunction or period of excess emissions that has occurred;
  - (2) Fails to provide for the operation of tanks #04 and #05, the combination wetting agent type fume suppressant and foam blanket and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
  - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, combination wetting agent type fume suppressant and foam blanket, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

#### D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for tanks #04 and #05 and the combination wetting agent type fume suppressant and foam blanket.

#### D.2.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)] [326 IAC 20-8-1]

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- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of tanks #04 and #05. The OMP shall specify the operation and maintenance criteria for tanks #04 and #05, the combination wetting agent type fume

suppressant and foam blanket and monitoring equipment and shall include the following elements:

- (1) Manufacturers recommendations for maintenance of the monitoring equipment used to measure surface tension;
  - (2) A standardized checklist to document the operation and maintenance criteria for tanks #04 and #05, the air pollution control device, the add-on air pollution control device and the monitoring equipment.
  - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
  - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of tanks #04 and #05, the air pollution control device, the add-on air pollution control device and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.2.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.2.6(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining tanks #04 and #05, the air pollution control device, the add-on air pollution control device and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of tanks #04 and #05 or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each revision to the plan.

#### **Compliance Determination Requirements [326 IAC 2-1.1-11]**

D.2.7 Performance Testing [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]

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- (a) A performance test demonstrating initial compliance for tank #04 was performed on January 2, 1996.

During the initial performance test conducted on January 2, 1996, it was determined that the surface tension of the bath, using Method 306B, Appendix A of 40 CFR 63, was 31 dynes/cm.

- (b) The Permittee is required to conduct an initial performance test within 180 days after startup of tank #05 using the procedures and methods in 40 CFR 63.344 and 40 CFR 63.7 and in accordance with Section C - Performance Testing.
- (c) The Permittee is not required to further test tanks #04 and #05 by this permit. However, the IDEM may require testing when necessary to determine if the tanks are in compliance. If testing is required by the IDEM, compliance with the limit specified in Condition D.2.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- (d) Any change, modification, or reconstruction of tanks #04 and #05, the combination wetting agent type fume suppressant and foam blanket or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

**D.2.8 Establishing Site-Specific Operating Parameter Values [40 CFR 63.343(c)] [40 CFR 63.344(d)] [326 IAC 20-8-1]**

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- (a) In lieu of establishing the maximum surface tension during a performance test, the Permittee shall accept 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation. The Permittee is exempt from conducting a performance test only if the criteria of 40 CFR 63.343(b)(2) are met.

**Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]**

**D.2.9 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)] [326 IAC 20-8-1]**

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- (a) Pursuant to 40 CFR 63.343(c)(5)(ii) and (iii), when using a wetting agent in the electroplating bath to comply with the limit specified in Condition D.2.3, the Permittee shall monitor the surface tension of the electroplating baths. Operation of tanks #04 and #05 at a surface tension greater than the value established during a performance test shall constitute noncompliance with the standards. Operation of tanks #04 and #05 at a surface tension greater than 45 dynes per centimeter shall constitute noncompliance with the standards.
- (1) The Permittee shall monitor the surface tension of the electroplating bath during tank operation according to the following schedule:
- (A) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, appendix A of this part.

- (B) The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.
- (C) Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (B) above. For example, if a Permittee had been monitoring a tank once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.
- (2) Once a bath solution is drained from tanks #04 and #05 and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures in paragraphs (B) and (C) above.
- (b) Tank operation or operating time is defined as that time when a part is in the tank and there is a current running through the tank. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts is considered operating time.

#### **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

##### **D.2.10 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]**

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The Permittee shall maintain records to document compliance with Conditions D.2.3, D.2.4 and D.2.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the combination wetting agent type fume suppressant and foam blanket and monitoring equipment to document that the inspection and maintenance required by Conditions D.2.7 and D.2.9 have taken place. The record can take the form of a checklist and should identify the following:

- (1) The device inspected;
  - (2) The date of inspection;
  - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
  - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on tanks #04 and #05, the combination wetting agent type fume suppressant and foam blanket and monitoring equipment.
  - (c) Records of the occurrence, duration, and cause (if known) of each malfunction of tanks #04 and #05, the combination wetting agent type fume suppressant and foam blanket and monitoring equipment.
  - (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of tanks #04 and #05, the combination wetting agent type fume suppressant and foam blanket and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
  - (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
  - (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
  - (g) Test reports documenting results of all performance tests.
  - (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
  - (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
  - (j) The total process operating time, as defined in Condition D.2.9(b), of each tank, during the reporting period.
  - (k) Records of the date and time that fume suppressants were added to the electroplating bath, and the amount and type of fume suppressants added.
  - (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.2.11.

D.2.11 Reporting Requirements [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347]  
[326 IAC 20-8-1]

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The notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) Initial Notifications

The Permittee shall submit an Initial Notification for each new or reconstructed tank as follows:

(A) A notification of the actual date when construction of tank #05 commenced shall be submitted no later than thirty (30) days after such date.

(B) A notification of the actual date of startup of tank #05 shall be submitted within thirty (30) days after such date.

(2) Initial Notifications

The Permittee shall notify IDEM, OAQ in writing that the source is subject to 40 CFR Part 63, Subpart N. The notification shall be submitted no later than one hundred eighty (180) days after the compliance date and shall contain the information listed in 40 CFR 63.347(c)(1).

(3) Notification of Performance Test

The Permittee shall notify IDEM, OAQ in writing of their intention to conduct a performance test at least sixty (60) days before the test is scheduled to begin.

(A) Pursuant to Section C - Performance Testing, a test protocol shall be submitted no later than thirty-five (35) days prior to the intended test date.

(B) In the event the Permittee is unable to conduct the performance test as scheduled, pursuant to 40 CFR 63.7(b)(2) the Permittee shall notify IDEM, OAQ within five (5) days prior to the scheduled performance test date and specify the date when the performance test is rescheduled. Pursuant to Section C - Performance Testing, the rescheduled performance test date shall be no sooner than fourteen (14) days after IDEM, OAQ is notified in writing of the need to reschedule.

(4) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.

(A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).

(B) The NCS for tank(s) (#04 and #05) was submitted to IDEM, OAQ.

(5) Notification of Construction or Reconstruction

Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct tanks #04 and #05 without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.

- (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
  - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e., the addition of duct work to the CMP system]
  - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct tanks #04 and #05 serves as this notification.
  - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.
- (b) Performance Test Results
- The Permittee shall document results from the initial performance test and any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).
- The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.
- (c) Ongoing Compliance Status Report
- The Permittee shall prepare summary reports to document the ongoing compliance status of tanks #04 and #05 using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).
- Because tanks #04 and #05 are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAQ upon request.
- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
    - (A) The first report shall cover the period from the issuance date of this permit to December 31 of the year in which the permit is issued.
    - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.



(2) If either of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:

- (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.2.9(b) for the reporting period; or
- (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.2.9(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAQ may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

## SECTION D.3

## Emissions unit OPERATION CONDITIONS

### Emissions Unit Description

- (6) One (1) batch vapor cleaning open top degreaser operation, installed in 1974 and identified as HDCR-DEGR-01, with a daily solvent consumption rate of 18.3 gallons per day of trichloroethylene.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.3.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreaser Operation), the owner or operator shall:

- (a) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) Keep the cover closed at all times except when processing work loads through the degreaser;
- (c) Minimize solvent carryout by
  - (1) Racking parts to allow complete drainage;
  - (2) Moving parts in and out of the degreaser at less than 3.3 meters per minute (eleven (11) feet per minute);
  - (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (4) Tipping out any pools of solvent on the cleaned parts before removal; and
  - (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) Not occupy more than half of the degreaser's open top area with the workload;
- (f) Not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) Never spray above the vapor level;
- (h) Repair solvent leaks immediately, or shut down the degreaser;
- (i) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

- (j) Not use workplace fans near the degreaser opening;
- (k) Not allow visually detectable water in the solvent exiting the water separator; and
- (l) Provide a permanent, conspicuous label summarizing the operating requirements.

#### D.3.2 Volatile Organic Compounds (VOC)

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- (a) Pursuant to 326 IAC 8-3-6(a) (Open Top Vapor Degreaser Operation and Control Requirements), the owner or operator of a cold cleaner degreaser emissions unit shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover than can be opened and closed easily without disturbing the vapor zone.
  - (2) Equip the degreaser with the following switches:
    - (a) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
    - (b) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
    - (c) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
    - (d) Equip the degreaser with one (1) of the following control devices:
      - (i) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
      - (ii) A refrigerated chiller.
      - (iii) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
      - (iv) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
      - (v) Other systems of demonstrated equivalent or better control as those outlined in clauses (i) through (iv). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-6(b) (Open Top Vapor Degreaser Operation and Control Requirements), the owner or operator of a cold cleaning emissions unit shall ensure that the following operating requirements are met:

- (1) Keep the cover closed at all times except when processing workloads through the degreaser.
- (2) Minimize solvent carryout emissions by:
  - (a) Racking articles to allow complete drainage;
  - (b) Moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
  - (c) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (d) Tipping out any pools of solvent on the cleaned articles before removal; and
  - (e) Allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
- (4) Prohibit occupation of more than one-half ( $\frac{1}{2}$ ) of the degreaser's open top area with the workload.
- (5) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (6) Prohibit solvent spraying above the vapor level.
- (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (10) Prohibit the use of workplace fans near the degreaser opening.
- (11) Prohibit visually detectable water in the solvent exiting the water separator.

**D.3.3 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]**

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The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.

**D.3.4 Halogenated Solvent Cleaning Machine NESHAP [40 CFR Part 63, Subpart T]**

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This facility is subject to 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning Machine NESHAP), which is incorporated by reference as 326 IAC 20-6-1. A copy of the rule is attached.

- (a) That pursuant to 40 CFR 63.463(a) & (b), the Permittee shall conform to the following design requirements:
  - (1) The cleaning machine shall be designed or operated such that, it has an idling and downtime mode cover, as described in 40 CFR63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
  - (2) The cleaning machine shall be employed with a control combination of freeboard refrigeration device, freeboard ratio of 1.0, and superheated vapor and carbon adsorber or other equivalent methods of control as determined using the procedure in 40 CFR63.469).
- (b) That pursuant to 40 CFR 63.463 (d), the following work and operational practice requirements for the degreasing operation are applicable:
  - (1) Control air disturbances across the cleaning machine opening(s) by placing cover(s) to the solvent cleaning machine during the idling mode and the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place.
  - (2) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
  - (3) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.
  - (4) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
  - (5) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
  - (6) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
  - (7) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is

turned off.

- (8) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
  - (9) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
  - (10) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
  - (11) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
  - (12) Sponges, fabric, wood, and paper products shall not be cleaned.
- (c) That pursuant to 40 CFR 63.463 (e), the Permittee shall comply with the following requirements:
- (1) The Permittee shall conduct monitoring of each control device used to comply with §63. 463 as provided in 40 CFR63. 466, monitoring procedures.
  - (2) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
    - (A) The Permittee shall ensure that the chilled air blanket temperature (in EF), measured at the center of the air blanket of the freeboard refrigeration device is no greater than 30% of the solvent's boiling point.
    - (B) When using a superheated vapor system the Permittee shall:
      - (i) ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10EF above the solvent's boiling point.
      - (ii) ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.
      - (iii) ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.

- (3) An exceedance has occurred if :
  - (A) the requirements of paragraphs (c)(2)(B)(ii) of this condition are not met; and
  - (B) the requirements of paragraphs (c)(2)(A) and (c)(2)(B)(i) of this condition have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (4) the owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468.

**Compliance Determination Requirements [326 IAC 2-1.1-11]**

**D.3.5 Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.465]**

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The Permittee is not required to test this facility by this permit or by 40 CFR Part 63; 40 CFR 63.465 Test Methods. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.

- (a) The Permittee shall determine the idling emission rate of the solvent cleaning machine using reference method 307 in Appendix A to this part.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

**D.3.6 Monitoring Procedures [326 IAC 2-7-6(1)]**

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That pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:

- (a) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph(s) below:
  - (1) The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket of the freeboard refrigeration device, during the idling mode.
  - (2) The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode.
- (b) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
  - (1) The Permittee shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.
- (c) The Permittee shall monitor the hoist speed as described below:

- (1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
- (2) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
- (3) If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.
- (4) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

#### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

##### **D.3.7 Recordkeeping Requirements**

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- (a) The Permittee shall maintain, in written or electronic form, records of the following information specified below, for the life time of the machine,
  - (1) Owners's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.
  - (2) The date of installation of the solvent cleaning machine and all of its control devices. If the exact date of the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
  - (3) The Permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test.
  - (4) Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine.
- (b) The Permittee shall maintain, in written or electronic form, records of the following information specified below for a period of 5 years:
  - (1) The results of control device monitoring required under 40 CFR63.466.
  - (2) Information on the actions taken to comply with 40 CFR63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.



- (3) Estimates of annual solvent consumption for each solvent cleaning machine.

#### D.3.8 Reporting Requirements

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A summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, and to the following address:

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (a) An initial notification report for HDCR-DEGR-01 was submitted on August 25, 1995.
- (b) An initial statement of compliance for HDCR-DEGR-01 was submitted on December 12, 1997.
- (1) The Permittee shall submit a test report for tests of idling emissions meeting the specifications in Method 307 of Appendix 40 CFR 63, Subpart T. This report shall comply with the following requirements:
  - (A) The test must be on the same specific model cleaner used at the source. The test can be done by the Permittee of the affected machine or can be supplied by the vendor of that solvent cleaning machine or a third party.
  - (B) The report must clearly state the monitoring parameters, monitoring frequency and the delineation of exceedances for each parameter.
  - (C) If a solvent cleaning machine vendor or third party test report is used to demonstrate compliance, it shall include the following for the solvent cleaning machine tested: Name of the person(s) or company that performed the test, model name, the date the solvent cleaning machine was tested, serial number, and a diagram of the solvent cleaning machine tested.
  - (D) If a solvent cleaning machine vendor or third party test report is used, the Permittee shall comply with the following requirement:
    - (i) Submit a statement by the solvent cleaning machine vendor that the unit tested is the same as the unit the report is being submitted for.
- (c) The Permittee shall submit an annual report by February 1 of each year following the one for which the reporting is being made. This report shall include the requirements as follows:
  - (1) A signed statement from the facility owner or his designee stating that , "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass

the test required in 40 CFR63.463(d)(10)."

- (2) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
- (d) The Permittee shall submit an exceedance report to the commissioner semiannually except when, the commissioner determines, on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph 40 CFR63.468 (i) of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calender half or quarter, as appropriate. The exceedance report shall include the applicable information as given below:
- (1) Information on the actions taken to comply with 40 CFR63. 463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
  - (2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
  - (3) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
- (e) That pursuant to 40 CFR63.463 (i), the Permittee who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the following conditions are met:
- (1) The source has demonstrated a full year of compliance without an exceedance.
  - (2) The Permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in Subpart A (General Provisions) and in 40 CFR 63, Subpart T
  - (3) The commissioner does not object to a reduced frequency of reporting for the affected source as provided in paragraphs (e)(3)(iii) of Subpart A (General Provisions) of 40 CFR 63.
- (c) The Permittee of a solvent cleaning machine requesting an equivalency determination, as described in 40 CFR63.469 shall submit an equivalency request report to the commissioner and receive an approval prior to startup.

## SECTION D.4

## Emissions unit OPERATION CONDITIONS

### Emissions Unit Description

- (7) One (1) natural gas fired boiler, identified as Main Boiler, with a maximum heat input rate of 4.718 million (MM) British thermal units (Btu) per hour, exhausting through one (1) stack identified as # 7;
- (8) One (1) natural gas fired gas burner for tank, identified as Black Oxide, with a maximum heat input rate of 0.30 MMBtu per hour, exhausting through one (1) stack identified as # 8; and
- (9) One (1) natural gas fired gas burner oven, identified as Oven, with a maximum heat input rate of 0.70 MMBtu per hour, exhausting through one (1) stack identified as # 9.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards

### D.4.1 Particulate Matter Limitation (PM)

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Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which have 10 MMBtu/hr heat input or less and which began operation after September 21, 1983, shall in no case exceed 0.6 lb/MMBtu heat input. Therefore PM emissions from the one (1) natural gas fired boiler (Main Boiler), rated at 4.718 MMBtu/hr, shall be limited to 0.6 lb/MMBtu heat input.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	K & I Hard Chrome, Inc.
<b>Address:</b>	1900 E. Main Street, New Albany, IN 47150
<b>City:</b>	New Albany
<b>Phone #:</b>	(812) 948-1166
<b>MSOP #:</b>	043-11884-00052

I hereby certify that K & I Hard Chrome, Inc. is ☒ still in operation.  
☐ no longer in operation.

I hereby certify that K & I Hard Chrome, Inc. is ☒ in compliance with the requirements of MSOP 043-11884-00052.  
☐ not in compliance with the requirements of MSOP 043-11884-00052.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>



**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_        AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_        AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

—  
MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

### **326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

### **326 IAC 1-2-39 “Malfunction” definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

\_\_\_\_\_  
\_\_\_\_\_

PAGE 2 OF 2

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
CHROMIUM ELECTROPLATING AND ANODIZING NESHAP  
ONGOING COMPLIANCE STATUS REPORT**

Source Name:  
Source Address:  
Mailing Address:  
Part 70 Permit No.:

Tank ID #: \_\_\_\_\_  
Type of process: *[Hard, Decorative, Anodizing]*  
Monitoring Parameter: *[e.g., Surface tension of the electroplating or anodizing bath]*  
Parameter Value: *[e.g., 45 dynes per centimeter]*  
Limits: Total chromium concentration may not exceed \_\_\_\_\_ mg/dscm

This form is to be used to report compliance for the Chromium Electroplating and Anodizing NESHAP only.  
The frequency for completing this report may be altered by IDEM, OAQ, Compliance Branch.

**Companies classified as a major source:** *Submit this report no later than 30 days after the end of the reporting period.*

**Companies classified as an area source:** *Complete this report no later than 30 days after the end of the reporting period, and retain on site unless otherwise notified.*

This form consists of 2 pages

Page 1 of 2

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:	
TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:	
<b>MAJOR AND AREA SOURCES: CHECK ONE</b>	
<b>9</b>	NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
<b>9</b>	THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).



**AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:**

IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

**HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:**  
LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

**CHROMIUM ELECTROPLATING AND ANODIZING NESHAP  
ONGOING COMPLIANCE STATUS REPORT**

ATTACH A SEPARATE PAGE IF NEEDED

Page 2 of 2

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:

DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:

ADDITIONAL COMMENTS:

**ALL SOURCES: CHECK ONE**

- 9** I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.
- 9** THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Minor Source Operating Permit (MSOP)

**Source Name:** K & I Hard Chrome, Inc.  
**Source Location:** 1900 E. Main Street, New Albany, IN 47150  
**SIC Code:** 3471  
**County:** Floyd  
**Operation Permit No.:** MSOP 043-11884-00052  
**Permit Reviewer:** NH/EVP

On December 12, 2000, the Office of Air Quality (OAQ) had a notice published in the New Albany Tribune, New Albany, Indiana, stating that K & I Hard Chrome, Inc. had applied for a Minor Source Operating Permit (MSOP) to operate a hard and decorative chromium electroplating facility. The notice also stated that OAQ proposed to issue a MSOP for this operation and provided information on how the public could review the proposed MSOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this MSOP should be issued as proposed.

On January 15, 2001, Robert A. Eckerle, President of K & I Hard Chrome, Inc. submitted comments on the proposed MSOP. The summary of the comments and corresponding responses is as follows (**bolded** language has been added, the language with a ~~line~~ through it has been deleted):

#### **Comment # 1**

An inadvertent mistake was made in the application of our air permit MSOP 043-11884-00052, it was mistakenly reported on Form L (Degreasing operation) that our solvent consumption was 18.3 gals/day when, in fact that was pounds per day. This calculates out to an actual consumption rate of 1.5 gals/day.

#### **Response # 1**

40 CFR Part 63, Subpart T applies to a degreasing operation based on the type of solvent regardless of the quantity of the solvent used. 40 CFR Part 63, Subpart T applies to each individual batch vapor cleaning open top degreaser operation which uses any solvent containing trichloroethylene as a cleaning agent. K & I uses reclaimed trichloroethylene in its open top degreaser. No changes have been made to the permit as a result of this comment.

Upon further review, the OAQ has decided to make the following revisions to the permit:

- 1) The Part 70 permit has been revised to reflect the name change of the Office of Air Management (OAM) to the Office of Air Quality (OAQ).
- 2) The expiration date has been added to the signature box.



## **Indiana Department of Environmental Management Office of Air Management**

### Technical Support Document (TSD) for a Minor Source Operating Permit

#### **Source Background and Description**

**Source Name:** K & I Hard Chrome, Inc.  
**Source Location:** 1900 E. Main Street, New Albany, IN 47150  
**County:** Floyd  
**SIC Code:** 3471  
**Operation Permit No.:** MSOP 043-11884-00052  
**Permit Reviewer:** NH/EVP

The Office of Air Management (OAM) has reviewed an application from K & I Hard Chrome, Inc. relating to the operation of a hard and decorative chromium electroplating facility.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (1) One (1) Hard Chromium Electroplating Operation (identified as System #1) with a maximum cumulative rectifier capacity of 42,336,000 Ampere-hour (A-hr) consisting of:
  - (a) Three (3) hard chromium electroplating tanks, identified as #31, #32 and #33, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #1;
- (2) One (1) Hard Chromium Electroplating Operation (identified as System #2) with a maximum cumulative rectifier capacity of 170,520,000 Ampere-hour (A-hr) consisting of:
  - (a) Six (6) hard chromium electroplating tanks, identified as #41, #42, #43, #44, #45 and #46, equipped with a composite mesh pad system, and exhausting to one (1) stack, identified as #2;
- (3) One (1) Decorative Chromium Electroplating Operation (identified as System #3) consisting of:
  - (a) One (1) decorative chromium electroplating tank, identified as #04, using a hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket, and exhausting to one (1) stack, identified as #3;
- (4) One (1) Decorative Chromium Electroplating Operation (identified as System #4) consisting of:
  - (a) One (1) decorative chromium electroplating tank, identified as #05, using a

hexavalent chromium bath, equipped with a combination wetting agent type fume suppressant and foam blanket;

- (5) Three (3) electroless nickel plating systems, identified as # 1, # 2 and # 3, using three (3) exhaust fans for control, exhausting to three (3) stacks identified as # 4, # 5 and # 6, respectively;
- (6) One (1) batch vapor cleaning open top degreaser operation, installed in 1974 and identified as HDCR-DEGR-01, with a daily solvent consumption rate of 18.3 gallons per day of trichloroethylene;
- (7) One (1) natural gas fired boiler, identified as Main Boiler, with a maximum heat input rate of 4.718 million (MM) British thermal units (Btu) per hour, exhausting through one (1) stack identified as # 7;
- (8) One (1) natural gas fired gas burner for tank, identified as Black Oxide, with a maximum heat input rate of 0.30 MMBtu per hour, exhausting through one (1) stack identified as # 8; and
- (9) One (1) natural gas fired gas burner oven, identified as Oven, with a maximum heat input rate of 0.70 MMBtu per hour, exhausting through one (1) stack identified as # 9.

#### Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

#### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
# 1	Chrome CMP System #1	25	24"	8000	Ambient
# 2	Chrome CMP System #2	25	21"	9900	Ambient
# 3	Decorative Chrome System #3	25	18"	--	Ambient
# 4	Electroless Nickel #1	30	20" x 10"	--	Unknown
# 5	Electroless Nickel #2	20	8"	--	Unknown
# 6	Electroless Nickel #3	30	12"	--	Unknown
# 7	Boiler	25	12"	--	375
# 8	Black Oxide	20	8"	--	300
# 9	Oven	20	8"	--	300

#### Enforcement Issue

Any chrome electroplating source that consists of a chromium electroplating tank, chromium anodizing tank, or an operation subject to 326 IAC 20-8 shall apply for approval under this rule no later than December 27, 1999. K & I Hard Chrome, Inc. submitted their application on January 19,

2000. IDEM is aware of this and will take appropriate action.

## Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 19, 2000, with additional information received on March 22, 2000 and August 28, 2000.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, page 1).

Chromium emissions (Single HAP) from the biggest source in Indiana is less than ten (10) tons per year and K & I Hard Chrome, Inc. is a much smaller source in comparison. So no calculations were necessary for this source because the emissions from this source will be less than ten (10) tons per year.

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.05
PM-10	0.19
SO <sub>2</sub>	0.02
VOC	0.14
CO	2.10
NO <sub>x</sub>	2.50

HAP's	Potential To Emit (tons/year)
Nickel Compounds	Less than 10
Chromium Compounds	Less than 10
TOTAL	Less than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The existing source is subject to 326 IAC 20-8 but not subject to 326 IAC 2-5.5-1(b)(2) (registration) because the source uses hexavalent chromium for decorative coating instead of trivalent chromium and the source emits less than major source levels (see statement (a) above). Therefore, the source is subject to the provisions of 326 IAC 2-6.1-3(a).

### Actual Emissions

No previous emission data has been received from the source.

### County Attainment Status

The source is located in Floyd County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	moderate nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Floyd County has been designated as nonattainment for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Floyd County has been classified as attainment for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.05
PM10	0.19
SO <sub>2</sub>	0.02
VOC	0.14
CO	2.10
NO <sub>x</sub>	2.50
Single HAP	< 10.0 each HAP
Combination HAPs	< 25.0

- (a) This existing source is not a major stationary source because no attainment regulated



pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP 043-11884-00052, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

## Federal Rule Applicability

- (a) The one (1) natural gas fired boiler identified as Main Boiler, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Dc), because the boiler capacity is less than 10 MMBtu per hour.
- (b) Tanks #31, #32, #33, #41, #42, #43, #44, #45, #46, #04 and #05 are subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63, Subpart N, and 326 IAC 20-1-1). Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-1-1, the chromium electroplating operations are subject to the following conditions:
  - (1) The permittee shall comply with the requirements of this condition on and after the compliance date for the tank.
    - (A) Hard chromium electroplating facilities with a maximum cumulative rectifier capacity greater than 60 million Ampere-hours are considered large. Tanks that were constructed on or before January 25, 1995 are considered existing hard chromium electroplating tanks.
      - (i) The hard chromium electroplating tanks, identified as #41, #42, #43, #44, #45 and #46 above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed fifteen-thousandth milligrams of total chromium per dry standard cubic meter of ventilation air (0.015 mg/dscm) [equivalent to six and six-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air ( $6.6 \times 10^{-6}$  gr/dscf)].
      - (ii) The hard chromium electroplating tanks, identified as #31, #32 and #33 above, are considered a small, existing hard chromium electroplating operation. During tank operation, the Permittee

shall control chromium emissions discharged to the atmosphere from the hard chromium electroplating tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed three-hundredths milligrams of total chromium per dry standard cubic meter of ventilation air (0.03 mg/dscm) [equivalent to one and three-tenths times ten raised to the power of negative five grains of total chromium per dry standard cubic foot of ventilation air ( $1.3 \times 10^{-5}$  gr/dscf)].

- (B) During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from tanks #04 and #05 by:
- (i) Not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed one-hundredth milligrams of total chromium per dry standard cubic meter of ventilation air (0.01 mg/dscm) [equivalent to four and four-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air ( $4.4 \times 10^{-6}$  gr/dscf)]; or
  - (ii) Not allowing the surface tension of the anodizing bath contained within the tank to exceed forty-five dynes per centimeter (45 dynes/cm) [equivalent to three and one-tenth times ten raised to the power of negative three pound-force per foot ( $3.1 \times 10^{-3}$  lb<sub>f</sub>/ft)] at any time during operation of tanks #04 and #05 when a chemical fume suppressant containing a wetting agent is used.
  - (iii) Not allowing the foam blanket thickness of the anodizing bath contained within the tank to be less than two and fifty-four hundredths centimeters (2.54 cm) [equivalent to one inch (1 in)] at any time during operation of tanks #04 and #05 when a foam blanket is used.

(2) **Monitoring Requirements**

The surface tension of the chromium electroplating bath contained within the tank shall not exceed forty-five (45) dynes per centimeter at any time during the operation of the tank if a chemical fume suppressant containing a wetting agent is used to demonstrate compliance.

Each time that surface tension monitoring exceeds forty-five (45) dynes per centimeter, the frequency of monitoring must revert back to every four (4) hours of tank operation. After forty (40) hours of monitoring tank operation every four (4) hours with no exceedances, surface tension measurement may be conducted once every eight (8) hours of tank operation. Once there have been no exceedances during forty (40) hours of tank operation, surface tension measurement may be conducted once every forty (40) hours of tank operation on an ongoing basis, until an exceedance occurs.

An alternative emission limit of 0.01 milligram per dry standard cubic meter (mg/dscm) will be applicable if the chromium electroplating bath does not meet the limit above.

(3) **Reporting Requirements**

- (A) A summary report shall be prepared to document the ongoing compliance status of the chromium electroplating operation. This report shall be completed annually, retained on site, and made available to IDEM upon request. If there are significant exceedance of chromium air emission limits (as defined in 40 CFR Part 63.347(h)(2)), then semiannual reports shall be submitted to:

Indiana Department of Environmental Management  
Air Compliance Branch, Office of Air Management  
Chromium Electroplating  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206

- (B) The chromium electroplating operations shall be subject to the record keeping and reporting requirement as indicated in the chromium electroplating NESHAP.
- (c) The one (1) batch vapor cleaning open top degreaser operation, identified as HDCR-DEGR-01 is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63, Subpart T).

**State Rule Applicability - Entire Source**

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because it is not a major source (greater than 10 tons/year for a single HAP or greater than 25 tons/year for total HAPs) for HAPs.

326 IAC 2-6 (Emission Reporting)

This source is located in Floyd County and the potential to emit VOC and NO<sub>x</sub> is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The one (1) natural gas fired boiler (Main Boiler), rated at 4.718 MMBtu per hour, is subject to the particulate matter limitations of 326 IAC 6-2. Pursuant to this rule, the boiler is limited by the

following equation from 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where: Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input  
Q = total source max. indirect heater input = Main Boiler = 4.718 MMBtu/hr

$$Pt = 1.09/4.718^{0.26} = 0.73 \text{ lbs PM/MMBtu}$$

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which have 10 MMBtu/hr heat input or less and which began operation after September 21, 1983, shall in no case exceed 0.6 lb/MMBtu heat input. Therefore PM emissions from the one (1) natural gas fired boiler (Main Boiler), rated at 4.718 MMBtu/hr, shall be limited to 0.6 lb/MMBtu heat input.

326 IAC 8-3-3 (Open Top Vapor Degreaser Control)

Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreaser Operation), the owner or operator shall:

- (a) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) Keep the cover closed at all times except when processing work loads through the degreaser;
- (c) Minimize solvent carryout by
  - (1) Racking parts to allow complete drainage;
  - (2) Moving parts in and out of the degreaser at less than 3.3 meters per minute (eleven (11) feet per minute);
  - (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (4) Tipping out any pools of solvent on the cleaned parts before removal; and
  - (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) Not occupy more than half of the degreaser's open top area with the workload;
- (f) Not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) Never spray above the vapor level;
- (h) Repair solvent leaks immediately, or shut down the degreaser;
- (i) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (j) Not use workplace fans near the degreaser opening;

- (k) Not allow visually detectable water in the solvent exiting the water separator; and
- (l) Provide a permanent, conspicuous label summarizing the operating requirements.

326 IAC 8-3-6 (Open Top Vapor Degreaser Operation and Control Requirements)

- (a) Pursuant to 326 IAC 8-3-6(a) (Open Top Vapor Degreaser Operation and Control Requirements), the owner or operator of a cold cleaner degreaser emissions unit shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover than can be opened and closed easily without disturbing the vapor zone.
  - (2) Equip the degreaser with the following switches:
    - (a) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
    - (b) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
    - (c) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
    - (d) Equip the degreaser with one (1) of the following control devices:
      - (i) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
      - (ii) A refrigerated chiller.
      - (iii) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
      - (iv) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
      - (v) Other systems of demonstrated equivalent or better control as those outlined in clauses (i) through (iv). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-6(b) (Open Top Vapor Degreaser Operation and Control Requirements), the owner or operator of a cold cleaning emissions unit shall ensure that the following operating requirements are met:
  - (1) Keep the cover closed at all times except when processing workloads through the degreaser.
  - (2) Minimize solvent carryout emissions by:
    - (a) Racking articles to allow complete drainage;

- (b) Moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
  - (c) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (d) Tipping out any pools of solvent on the cleaned articles before removal; and
  - (e) Allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
  - (4) Prohibit occupation of more than one-half ( $\frac{1}{2}$ ) of the degreaser's open top area with the workload.
  - (5) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
  - (6) Prohibit solvent spraying above the vapor level.
  - (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
  - (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
  - (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
  - (10) Prohibit the use of workplace fans near the degreaser opening.
  - (11) Prohibit visually detectable water in the solvent exiting the water separator.

## Conclusion

The operation of this hard and decorative chromium facility shall be subject to the conditions of the attached proposed **Minor Source Operating Permit 043-11884-00052**.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

**Company Name:** K & I Hard Chrome, Inc.  
**Address City IN Zip:** 1900 E. Main Street, New Albany, IN 47150  
**CP:** 043-11884  
**Plt ID:** 043-00052  
**Reviewer:** Nishat Hydari / EVP

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

5.718
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50.1

Facilities	MMBtu/hr
Boiler (Main Boiler)	4.718
Gas Burner for Tank (Black Oxide)	0.3
Gas Burner Oven (Oven)	0.7
<b>Total</b>	<b>5.718</b>

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.05	0.19	0.02	2.50	0.14	2.10

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).